UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,614	01/16/2001	Freddie Lin	2008.004	4897

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EXAMINER
DUONG, THOMAS

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _11 May 2005_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-28_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-28_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Request for Continued Examination

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR

1.17(e) has been timely paid, the finality of the previous Office action has been

withdrawn pursuant to 37 CFR 1.114.

2.   Amendment received May 11, 2005 has been entered into record. *Claims 1-28* remain

pending.

Response to Amendment

3.   This office action is in response to the applicants Amendment filed on May 11, 2005.

Applicant did not amend *any claims*. *Claims 1-28* are presented for further consideration

and examination.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   _Claims 1-28_ are rejected under 35 U.S.C. 102(e) as being anticipated by Huang et al. (US006618397B1).

6.   With regard to _claims 1-2 and 15-16_, Huang discloses,

- _receiving packets of data;_ (Huang, col.3, lines 60-63)

    Huang teaches that multiple packets are received and queued internally in a node before being grouped and transmitted.

- _combining the packets of data based on packet header destination information to form a first combined file;_ (Huang, col.3, lines 47-59; col.4, lines 18-26; col.8, lines 26-27; module 556, fig.5B)

    Huang teaches that packets are grouped according to a common destination and dynamically combined the packets into one encapsulated packet.

- _compressing the first combined file to form a first compressed file; and_ (Huang, col.4, lines 28-31; col.8, lines 31-33; module 558, fig.5B)

    Huang teaches that the combined encapsulated packet can be compressed to increase the communication performance.

- _transmitting the first compressed file based upon any one of a plurality of different protocols in different network layers._ (Huang, col.3, lines 47-59; col.4, lines 1-5, lines 33-34; col.8, lines 39-42; module 562, fig.5B)

    Huang teaches of a _"system and method for group packet encapsulation and (optionally) compression ... [that would] increase packet transmission performance between two gateways or host computers by reducing data-link_

layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead" (Huang, col.3, lines 47-52). The Huang invention clearly applies to a group of data packets, which, as well known in the networking art, can pertain to any one of the 7 OSI networking layers.

Huang teaches of a *"system and method for group packet encapsulation and (optionally) compression ... [that would] increase packet transmission performance between two gateways or host computers by reducing data-link layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead"* (Huang, col.3, lines 47-52). The Huang invention clearly applies to a group of data packets, which, as well known in the networking art, can pertain to any one of the 7 OSI networking layers. Furthermore, Huang specifically states that the *"invention, which, as an example, can be used with IP packets"* (Huang, col.3, lines 56-57). In other words, Huang focused on the IP layer in the disclosure as an example and not as a limiting factor of the invention. In addition, the Examiner cannot find anywhere in the current application's disclosure the reference to the ability of applying the claimed invention to *"any one or combination of the 7 layers"* as the Applicants have remarked.

Huang teaches that *"in accordance with the encapsulation protocol, two communication nodes (e.g., a Node-X and a Node-Y), ... [which] could be a gateway, host computer or some other known communication device"* (Huang, col.4, lines 1-5). Thus, Huang anticipates the invention to be used with *'known communication devices'*, which certainly may include *'routers, switches, gateways, etc.'* as the Applicants have remarked. Furthermore, according to Huang, *"the system and method increase packet transmission performance between two*

gateways or host computers by reducing data-link layer framing overhead, reducing

packet routing overhead in gateways, reducing packet header overhead, and

increasing loss-less data compression ratio" (Huang, col.3, lines 48-53). Hence,

Huang anticipates the invention to operate in the data-link layer in addition to the

network layer.

7.   With regard to *claims 3-4 and 17-18*, Huang discloses,

*   *wherein the packets combined to form the first combined file have headers*

    addressed to the same first subnetwork, the first subnetwork comprising a

    plurality of users. (Huang, col.4, lines 26-33; col.5, line 61 – col.6, line 14; col.8,

    lines 33-36; module 560, fig.5B)

*   *further comprising inserting headers addressed to the first subnetwork on the*

    packets of the repacketized first compressed file. (Huang, col.4, lines 26-33;

    col.5, line 61 – col.6, line 14; col.8, lines 33-36; module 560, fig.5B)

8.   With regard to *claims 5-8 and 19-22*, Huang discloses,

*   *selecting a second group of packets of data with headers addressed to a second*

    subnetwork; combining the packets of data based on packet header destination

    information to form a first combined file; (Huang, col.3, lines 47-59; col.4, lines

    18-26; col.8, lines 26-27; module 556, fig.5B)

    Huang teaches that packets are grouped according to a common destination and

    dynamically combined the packets into one encapsulated packet.

*   *compressing the second combined file to form a second compressed file; and*

    (Huang, col.4, lines 28-31; col.8, lines 31-33; module 558, fig.5B)

Huang teaches that the combined encapsulated packet can be compressed to
increase the communication performance.

- *transmitting the second compressed file.* (Huang, col.4, lines 33-34; col.8, lines
39-42; module 562, fig.5B)

It is obvious to one of ordinary skill in the art that the method as rejected above
according to Huang can be reapplied to a different common destination address
to form a second group of encapsulated packets and compressed headers.

9.   With regard to *claims 9-10 and 23-24*, Huang discloses,

- *wherein the receiving step receives the packets of data from a third subnetwork.*
(Huang, col.3, lines 60-63)

Huang teaches that multiple packets are received and queued internally in a
node before being grouped and transmitted.

10.   With regard to *claims 11-14 and 25-28*, Huang discloses,

- *receiving packets of data;* (Huang, col.3, lines 60-63)

Huang teaches that multiple packets are received and queued internally in a
node before being grouped and transmitted.

- *combining and compressing the packets of data destined for a first subnetwork
according to a first compression algorithm to create a first compressed file; and*
(Huang, col.3, lines 47-59; col.4, lines 18-26, lines 28-31; col.8, lines 26-27, lines
31-33; module 556 and 558, fig.5B)

Huang teaches that packets are grouped according to a common destination and
dynamically combined the packets into one encapsulated packet. Huang

teaches that the combined encapsulated packet can be compressed to increase

the communication performance.

- *combining and compressing the packets of data destined for a second*

  subnetwork according to a second compression algorithm to create a second

  compressed file, each said compressing step being based upon any one of a

  plurality of different protocols in different network layers. (Huang, col.3, lines 47-

  59; col.4, lines 18-26, lines 28-31; col.8, lines 26-27, lines 31-33; module 556 and

  558, fig.5B)

  Huang teaches of a *"system and method for group packet encapsulation and*

  (optionally) compression ... [that would] increase packet transmission

  performance between two gateways or host computers by reducing data-link

  layer framing overhead, reducing packet routing overhead in gateways, reducing

  packet header overhead" (Huang, col.3, lines 47-52). The Huang invention

  clearly applies to a group of data packets, which, as well known in the networking

  art, can pertain to any one of the 7 OSI networking layers.

Huang teaches of a *"system and method for group packet encapsulation and*

(optionally) compression ... [that would] increase packet transmission performance

between two gateways or host computers by reducing data-link layer framing

overhead, reducing packet routing overhead in gateways, reducing packet header

overhead" (Huang, col.3, lines 47-52). The Huang invention clearly applies to a

group of data packets, which, as well known in the networking art, can pertain to any

one of the 7 OSI networking layers. Furthermore, Huang specifically states that the

"invention, which, as an example, can be used with IP packets" (Huang, col.3, lines

56-57). In other words, Huang focused on the IP layer in the disclosure as an

example and not as a limiting factor of the invention. In addition, the Examiner

cannot find anywhere in the current application's disclosure the reference to the

ability of applying the claimed invention to *"any one or combination of the 7 layers"*

as the Applicants have remarked. It is obvious to one of ordinary skill in the art that

the method as rejected above according to Huang can be reapplied to a different

common destination address to form a second group of encapsulated packets and

compressed headers.

Response to Argument

11.   The Applicants' arguments and amendments filed on May 11, 2005 have been fully

considered, but they are not persuasive.

12.   With regard to *claims 1, 11, 15 and 26*, the Applicants point out that:

- *In other words, the related "protocol associations", "address maps", or any other*

  required network protocol functions are addressed by another communications

  device, not by the Applicant's invention. This implies that the Applicant's

  invention can work with any ISO-standard compliant communication devices (i.e.,

  routers, switches, gateways, etc.) regardless of their layers of protocol. As noted

  in the present application at page 6, lines 15-17, the invention will work with

  "ATM switches, Ethernet switches, IP switches and any other switches" which

  are switches for different ISO layers. On the other hand all methods taught by

  Huang et al are specific to the IP layer and there is no suggestion that the same

  methods can be directly applied to other ISO layers.

However, the Examiner finds that the Applicants' arguments are not persuasive and

maintains that Huang discloses,

- *receiving packets of data;* (Huang, col.3, lines 60-63)

  Huang teaches that multiple packets are received and queued internally in a

  node before being grouped and transmitted.

- *combining the packets of data based on packet header destination information to*

  form a first combined file; (Huang, col.3, lines 47-59; col.4, lines 18-26; col.8,

  lines 26-27; module 556, fig.5B)

  Huang teaches that packets are grouped according to a common destination and

  dynamically combined the packets into one encapsulated packet.

- *compressing the first combined file to form a first compressed file; and* (Huang,

  col.4, lines 28-31; col.8, lines 31-33; module 558, fig.5B)

  Huang teaches that the combined encapsulated packet can be compressed to

  increase the communication performance.

- *transmitting the first compressed file based upon any one of a plurality of*

  different protocols in different network layers. (Huang, col.3, lines 47-59; col.4,

  lines 33-34; col.8, lines 39-42; module 562, fig.5B)

  Huang teaches of a *"system and method for group packet encapsulation and*

  (optionally) compression ... [that would] increase packet transmission

  performance between two gateways or host computers by reducing data-link

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  art, can pertain to any one of the 7 OSI networking layers.

Huang teaches of a *"system and method for group packet encapsulation and (optionally) compression ... [that would] increase packet transmission performance between two gateways or host computers by reducing data-link layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead"* (Huang, col.3, lines 47-52). The Huang invention clearly applies to a group of data packets, which, as well known in the networking art, can pertain to any one of the 7 OSI networking layers. Furthermore, Huang specifically states that the *"invention, which, as an example, can be used with IP packets"* (Huang, col.3, lines 56-57). In other words, Huang focused on the IP layer in the disclosure as an example and not as a limiting factor of the invention. In addition, the Examiner cannot find anywhere in the current application's disclosure the reference to the ability of applying the claimed invention to *"any one or combination of the 7 layers"* as the Applicants have remarked.

Huang teaches that *"in accordance with the encapsulation protocol, two communication nodes (e.g., a Node-X and a Node-Y), ... [which] could be a gateway, host computer or some other known communication device"* (Huang, col.4, lines 1-5). Thus, Huang anticipates the invention to be used with *'known communication devices'*, which certainly may include *'routers, switches, gateways, etc.'* as the Applicants have remarked. Furthermore, according to Huang, *"the system and method increase packet transmission performance between two gateways or host computers by reducing data-link layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead, and increasing loss-less data compression ratio"* (Huang, col.3, lines 48-53). Hence,

Huang anticipates the invention to operate in the data-link layer in addition to the

network layer.

Therefore, the Applicants still failed to clearly disclose the novelty of the invention

and identify specific limitation, which would define patentable distinction over prior

art.

Conclusion

13.   **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the

extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

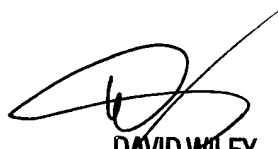SIX MONTHS from the date of this final action.

14.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Thomas Duong whose telephone number is 571/272-3911. The

examiner can normally be reached on M-F 7:30AM - 4:00PM. If attempts to reach the

examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-

Wallace can be reached on 571/272-6159. The fax phone numbers for the organization

where this application or proceeding is assigned are 703/872-9306 for regular

communications and 703/872-9306 for After Final communications. Any inquiry of a

general nature or relating to the status of this application or proceeding should be

directed to the receptionist whose telephone number is 571/272-2100.

Thomas Duong (AU2145)

July 7, 2005

DAVID WILEY
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